WHAT IS CLAIMED IS:

1. A method for manufacturing a flip-chip type semiconductor device, comprising the steps of:

forming a plurality of pad electrodes on a semiconductor substrate;

forming an insulating stress-absorbing resin layer on said semiconductor substrate, said insulating stress-absorbing resin layer having openings corresponding to said pad electrodes;

adhering a resin coated conductive layer on said semiconductor substrate, said resin coated conductive layer comprising a photosensitive insulating stress-absorbing resin layer made of thermosetting resin laminated by a first conductive layer , said insulating stress-absorbing resin layer having openings corresponding to said pad electrodes;

forming a second conductive layer having a pattern on said first conductive layer;

perforating said first conductive layer by using said second conductive layer as a mask, so that said first and second conductive layers have openings;

irradiating said photosensitive insulating stress-absorbing resin layer with light by using an exposure mask and said patterned first and second conductive layers so that irradiated portions of said photosensitive stress-absorbing resin layer are hardened;

developing said photosensitive insulating stress-absorbing resin layer so that unirradiated portions of said photosensitive insulating stress-absorbing resin layer are removed, so that said photosensitive insulating stress-absorbing resin layer has openings corresponding to said pad electrodes;

forming flexible conductive members each filled in one of said openings and electrically connecting said first and second conductive layers to respective ones of said pad electrodes; and

forming a plurality of metal bumps formed on said second conductive layer.